



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/884,828	06/18/2001	Pierre P. Repper	932-CAL	2484
26542	7590	10/28/2005	EXAMINER	
JAMES MARC LEAS 37 BUTLER DRIVE S. BURLINGTON, VT 05403			PRICE, CARL D	
			ART UNIT	PAPER NUMBER
			3749	

DATE MAILED: 10/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

6

Office Action Summary	Application No. 09/884,828	Applicant(s) REPPER ET AL.	
	Examiner CARL D. PRICE	Art Unit 3749	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 July 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13, 15-17, 20-57 and 61-85 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13, 15-17, 20-57 and 61-85 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>07/06/2005</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

A Request for Continued Examination under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 07/09/2005 has been entered.

Foreign Priority –PCT Application

It is noted that PCT application, which has been relied upon in the instant application for foreign priority rights, claimed benefit of U.S. provisional application. Since the instant application was filed more than 12 months after the prior provisional application, no benefit to the provisional application can be afforded. Acknowledgment is made of applicant's claim for foreign priority based on the PCT application filed on October 18, 1999. It is noted, however, that applicant has not filed a certified copy of the PCT application as required by 35 U.S.C. 119(b).

Response to Arguments

Applicant's arguments with respect to claims 1-13, 15-17, 20-57 and 61-85 have been considered but are moot in view of the new ground(s) of rejection.

Allowable Subject Matter

The indicated allowability of claims 1-13, 15-17, 20-57 and 61-85 is withdrawn in view of the newly discovered reference(s) to US005575638 (Witham et al) and GB002249382 (Monks), and USUS005388984 (Meslif)(of record).

Rejections based on the newly cited reference(s) follow.

Claims 1-13, 15-17, 20-57, 61-85: Rejected under 35 U.S.C. 103(a)

Claims 1-13, 15-17, 20-57 and 61-85 are rejected under 35 U.S.C. 103(a) as being unpatentable over **US005575638 (Witham et al)** in view of **GB002249382 (Monks)** and **USUS005388984 (Meslif)**.

US005575638 (Witham et al) shows and discloses a cooktop including:

- a plurality of gas burners and gas control valves;
- a user interface (24, 26, 28, 30) for user entry of burner heating level for each of the plural gas burners;
- a controller (38) operative to control each of the plural gas valves;
- plural igniters (53), each of the igniters being connected to ensure ignition of the gas delivered to its respective gas burner;
- temperature sensors, each of the sensors connected and placed to monitor the presence of flames at each of the respective burners;
 - o the cooktop being characterized in being adapted to operate alternatively in either of first and second modes:
 - the first mode having continuous flame modulation varying continuously between predetermined lower first and higher second heating levels; and
 - the second mode having intermittent flame for producing heating levels less than the lower first heating level for simmering operation, the intermittent flame being controlled between on and off states by the gas valves;
 - the gas valves being controlled by a pulse-width modulated electrical signal (see column 3, line 15; “burners include pulse sequence control”) provided by the controller in accordance with the user entry.

Art Unit: 3749

With regard to the burner mode operation, **US005575638 (Witham et al)** discloses the following:

(See column 4, line 65 –column5, line14)

In addition, while the rotation of the stem 100 operates the rotor 114 for corresponding electrical signaling of the position of the actuator through the prong 132 to the conductor for signal 60, the stem 100 also controls the position of the valve so as to open the valve fully at about a 90.degree. position from the fully clockwise rotational position. As the stem 100 is further rotated from about 90.degree. to about 210.degree., as designated by the range 94 in FIG. 2, the flow of gas through the valve decreases substantially linearly as the flow rate changes over the rotational positions. At about 210.degree., the actuator approaches range 96 at which the flow rate remains relatively constant at about 1/6 the maximum flow rate through the valve. Within the range 96, the flow of gas to the burner is governed solely by the solenoid valve 144 in response to the control signal 62 generated by control unit 42. The control signal 62 sent to the solenoid is likewise dependent upon the signal received from the potentiometer from signal conductor 60.

US005575638 (Witham et al) shows and discloses the invention substantially as set forth in the claims with possible exception to:

- each of the sensors connected and placed to monitor the presence of flames at each of the respective burners being, per se, “temperature sensors”. Note that **US005575638 (Witham et al)** does includes a flame detection circuit operating with the spark module (see column 3, lines 54-60). In this regard **US005575638 (Witham et al)** indirectly senses the temperature of the flame, by responding to the presence or absence of the flame.
- the gas valves being controlled by a, per se, “pulse-width modulated electrical signal” provided by the controller in accordance with the user entry.

GB002249382 (Monks) teaches, form applicant’s same cooktop burner control field of endeavor as well as the field of endeavor of **US005575638 (Witham et al)**, providing a an appliance burner with spark ignition circuit with a temperature sensor (thermocouple) connected

and placed to monitor the presence of flames at each of the respective burners, for the purpose of cutting of the flow of gas to the burner upon sensed absence of a flame.

USUS005388984 (Meslif) teaches, form applicant's same cooktop burner control field of endeavor as well as the field of endeavor of **US005575638 (Witham et al)**, controlling a cooking or heating appliance gas valves using a "pulse-width modulated electrical signal" so as to provided variable regulation of fuel flow in accordance with the user entry (i.e. – digital keys).

In regard to claims 1-13, 15-17, 20-57 and 61-85, for the same purpose of initiating ignition and for the purpose of cutting of the flow of gas to the burner upon sensed absence of a flame, it would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the ignition and flame sensor of **US005575638 (Witham et al)** to include a temperature sensor (thermocouple), rather than the electrode type flame sensor of **US005575638 (Witham et al)**, to monitor the presence of flames at each of the respective burners, in view of the teaching of **GB002249382 (Monks)**. Also, for the same purpose of providing pulse control means for modulating the burner, it would have been obvious to a person having ordinary skill in the art to modify the solenoid valve control of **US005575638 (Witham et al)** to be of the pulse-width modulation type, in view of the teaching of **USUS005388984 (Meslif)**.

In regard to, for example, claims 10, 11, 21, 22, 23, 54, 55, 57, 84 and 85, Official Notice is taken that it is well known in the automatic burner control field of endeavor to use various control condition display or indicator devices to alert a user and/or technician of burner and/or burner control conditions. Therefore, in view of that which is well known and for the known purpose, it would have been obvious to a person having ordinary skill in the art to modify **US005575638 (Witham et al)** to include visual display means of the type set forth in applicant's claims. Similarly, with regard to claims 12, 24, 27 and 44, for example, Official Notice is taken that it is well known to use resistive hot surface igniters to initiate combustion of fuel-air mixtures. Thus, in view of that which is well known and for the known purpose of achieving the same purpose of initiate combustion of fuel-air mixtures, it would have been obvious to a person

having ordinary skill in the art to modify the igniter of **US005575638 (Witham et al)** to be of the resistive hot surface igniter type.

Conclusion

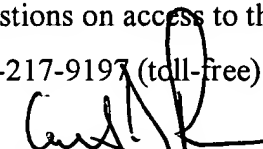
See the attached USPTO form 892 for prior art made of record and not relied upon which is considered pertinent to applicant's disclosure.

USPTO CUSTOMER CONTACT INFORMATION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CARL D. PRICE whose telephone number is (571) 272-4880. The examiner can normally be reached on Monday through Friday between 6:30am-3:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ehud Gartenberg can be reached on (571) 272-4828. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


CARL D. PRICE
Primary Examiner
Art Unit 3749